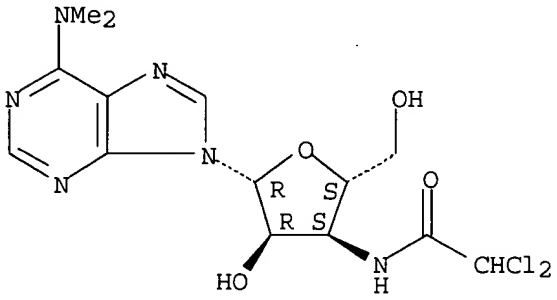
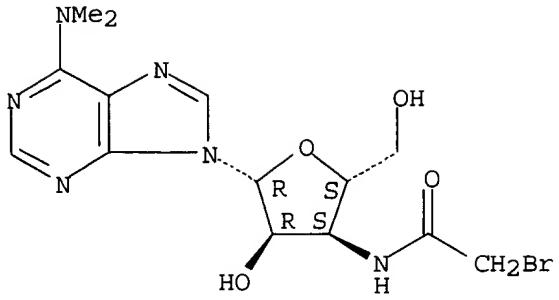
```
                    * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 08:07:05 ON 30 SEP 2002

=> fil reg
COST IN U.S. DOLLARS                                          SINCE FILE      TOTAL
                                                                   ENTRY    SESSION
FULL ESTIMATED COST                                                0.21       0.21

FILE 'REGISTRY' ENTERED AT 08:07:20 ON 30 SEP 2002

=> s aminonucleoside
L1            5 AMINONUCLEOSIDE

=> d tot

L1   ANSWER 1 OF 5  REGISTRY  COPYRIGHT 2002 ACS
RN   62509-03-9  REGISTRY
CN   Adenosine, 3'-deoxy-3'-[(dichloroacetyl)amino]-N,N-dimethyl- (9CI)  (CA
     INDEX NAME)
OTHER NAMES:
CN   Dichloroacetyl puromycin aminonucleoside
FS   STEREOSEARCH
MF   C14 H18 Cl2 N6 O4
LC   STN Files:   CA, CAPLUS

Absolute stereochemistry.
```




```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

               1 REFERENCES IN FILE CA (1962 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L1   ANSWER 2 OF 5  REGISTRY  COPYRIGHT 2002 ACS
RN   55281-44-2  REGISTRY
CN   Adenosine, 3'-[(bromoacetyl)amino]-3'-deoxy-N,N-dimethyl- (9CI)  (CA INDEX
     NAME)
OTHER NAMES:
CN   N-(Bromoacetyl)aminonucleoside
FS   STEREOSEARCH
MF   C14 H19 Br N6 O4
LC   STN Files:   BEILSTEIN*, CA, CAPLUS
         (*File contains numerically searchable property data)

Absolute stereochemistry.
```

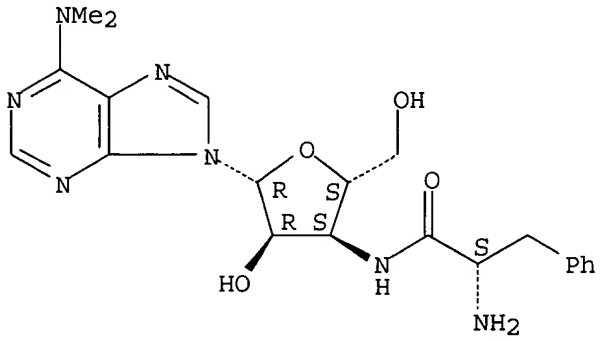


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1962 TO DATE)
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L1 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2002 ACS
RN 5001-55-8 REGISTRY
CN Adenosine, 3'-[(2-amino-1-oxo-3-phenylpropyl)amino]-3'-deoxy-N,N-dimethyl-, (S)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Adenosine, 3'-(.alpha.-aminohydrocinnamamido)-3'-deoxy-N,N-dimethyl-, L- (8CI)
OTHER NAMES:
CN 3'-N-L-Phenylalanyl-PANS
CN **N-Phenylalanylpuromycin aminonucleoside**
FS STEREOSEARCH
DR 21213-75-2
MF C21 H27 N7 O4
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)

Absolute stereochemistry.



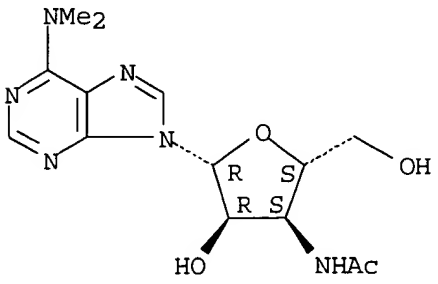
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6 REFERENCES IN FILE CA (1962 TO DATE)
6 REFERENCES IN FILE CAPLUS (1962 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L1 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2002 ACS
RN 72-94-6 REGISTRY
CN Adenosine, 3'-(acetylamino)-3'-deoxy-N,N-dimethyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Adenosine, 3'-acetamido-3'-deoxy-N,N-dimethyl- (6CI, 7CI)
OTHER NAMES:

CN 3'-Acetamido-3'-deoxy-N,N-dimethyladenosine
CN 3'-Deoxy-3'-acetylamino-6-dimethylaminopurine riboside
CN 6-N-Dimethyl-3'-deoxy-3'-(acetamido)adenosine
CN **Monoacetylpuromycin aminonucleoside**
FS STEREOSEARCH
MF C14 H20 N6 O4
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)

Absolute stereochemistry.

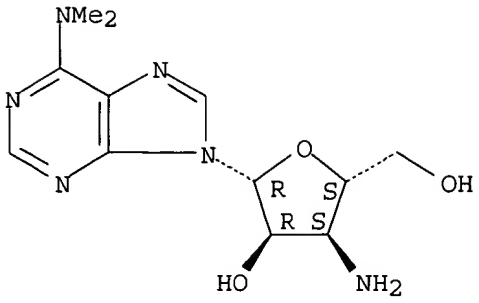


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7 REFERENCES IN FILE CA (1962 TO DATE)
7 REFERENCES IN FILE CAPLUS (1962 TO DATE)
7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L1 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2002 ACS
RN 58-60-6 REGISTRY
CN Adenosine, 3'-amino-3'-deoxy-N,N-dimethyl- (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 3'-Amino-3'-deoxy-N6,N6-dimethyladenosine
CN 6-(Dimethylamino)-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine
CN 6-Dimethylamino-9-(3-amino-3-deoxyribosyl)purine
CN 6-N-Dimethyl-3-deoxy-3-aminoadenosine
CN 9-(3-Amino-3-deoxy-.beta.-D-ribofuranosyl)-6-(dimethylamino)-9H-purine
CN **Aminonucleoside**
CN **Aminonucleoside puromycin**
CN **Puromycin, aminonucleoside**
CN SAN
CN **Stylomycin aminonucleoside**
FS STEREOSEARCH
DR 54833-68-0, 136680-68-7, 28315-29-9
MF C12 H18 N6 O3
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, MEDLINE, PIRA, RTECS*, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

367 REFERENCES IN FILE CA (1962 TO DATE)
368 REFERENCES IN FILE CAPLUS (1962 TO DATE)
30 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> fil hcapl

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	13.80	14.01

FILE 'HCAPLUS' ENTERED AT 08:10:21 ON 30 SEP 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

=> s l1
L2 393 L1

=> s l2 not 1999-2002/py
3402859 1999-2002/PY
L3 364 L2 NOT 1999-2002/PY

=> s l2(8a)label?
374750 LABEL?
L4 5 L2(8A)LABEL?

=> d tot

L4 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2002 ACS
TI Synthesis of 6-dimethylamino-9-[3'-(O-methyl)-(2S)-[UL-14C]-tyrosinylamino)-3'-deoxy-.beta.-D-ribofuranosyl]purine
SO Journal of Labelled Compounds & Radiopharmaceuticals (2000), 43(6), 623-634
CODEN: JLCRD4; ISSN: 0362-4803
AU Mehrotra, Amit P.; Ryan, Martin D.; Gani, David
AN 2000:365153 HCAPLUS
DN 133:177394

L4 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2002 ACS
TI Basis for the differential action of aminonucleoside on normal and transformed human fibroblasts
SO JNCI, J. Natl. Cancer Inst. (1982), 68(3), 407-13
CODEN: JJIND8; ISSN: 0198-0157
AU Albanese, Ernest A.; Studzinski, George P.
AN 1982:400387 HCAPLUS
DN 97:387

L4 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2002 ACS

TI Metabolism of puromycin aminonucleoside in transformed human lung fibroblasts and the mechanism of its inhibition of RNA synthesis
SO Mol. Pharmacol. (1980), 17(2), 262-7
CODEN: MOPMA3; ISSN: 0026-895X
AU Albanese, Ernest A.; Studzinski, George P.
AN 1980:158350 HCAPLUS
DN 92:158350

L4 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2002 ACS
TI Photoaffinity labeling of the ribosomal peptidyl transferase site with synthetic puromycin analogs
SO Biochemistry (1978), 17(25), 5489-93
CODEN: BICHAW; ISSN: 0006-2960
AU Vince, Robert; Brownell, Jay; Fong, Kei-Lai Lau
AN 1979:35250 HCAPLUS
DN 90:35250

L4 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2002 ACS
TI fMet-tRNAfMet binding and peptidyl transferase function in free and bound ribosomes from normal and puromycin aminonucleoside-treated rats
SO Chem.-Biol. Interact. (1975), 11(5), 431-9
CODEN: CBINA8
AU Innanen, V. T.; Nicholls, D. M.
AN 1976:697 HCAPLUS
DN 84:697

=> d all tot

L4 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2002 ACS
AN 2000:365153 HCAPLUS
DN 133:177394
TI Synthesis of 6-dimethylamino-9-[3'-(O-methyl)-(2S)-[UL-14C]-tyrosinylamino)-3'-deoxy-.beta.-D-ribofuranosyl]purine
AU Mehrotra, Amit P.; Ryan, Martin D.; Gani, David
CS School of Chemistry, University of Birmingham, Birmingham, B15 2TT, UK
SO Journal of Labelled Compounds & Radiopharmaceuticals (2000), 43(6), 623-634
CODEN: JLCRD4; ISSN: 0362-4803
PB John Wiley & Sons Ltd.
DT Journal
LA English
CC 33-9 (Carbohydrates)
OS CASREACT 133:177394
AB Investigate and further refine the mechanism of the unique cleavage activity of the 18 amino acid 2A region of the foot-and-mouth-disease virus (FMDV), the synthesis of 14C-labeled puromycin is required. Puromycin is an inhibitor of protein synthesis and is an analog of the terminal aminoacyl-adenosine portion of aminoacyl-tRNA. A short and expedient 4 step synthesis of the title compd., 14C-labeled puromycin, starting from (2S)-[UL-14C]-tyrosine is therefore described.
ST puromycin carbon 14 prepn
IT **58-60-6**, Puromycin aminonucleoside 60-18-4, L-Tyrosine, reactions 18875-48-4, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of carbon-14-**labeled** puromycin)
IT 1164-16-5P 17554-34-6P 57182-86-2P 121778-71-0P 288586-48-1P 288586-49-2P 288586-50-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of carbon-14-labeled puromycin)
IT 53-79-2P 288586-51-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of carbon-14-labeled puromycin)

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Allen, D; Biochim Biophys Acta 1962, V55, P865 HCAPLUS
(2) Baker, B; J Am Chem Soc 1955, V77, P1 HCAPLUS
(3) Beaton, G; Tetrahedron 1988, V44, P6419 HCAPLUS
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(5) Bovarnick, M; J Am Chem Soc 1938, V60, P2426 HCAPLUS
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(7) Diago-Meseguer, J; Synthesis 1980, P547 HCAPLUS
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(11) Motawia, M; Synthesis 1995, P265 HCAPLUS
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(14) Nathans, D; Federation Proc Pt1 1964, V23, P984 MEDLINE
(15) Nathans, D; Nature 1963, V197, P1076 HCAPLUS
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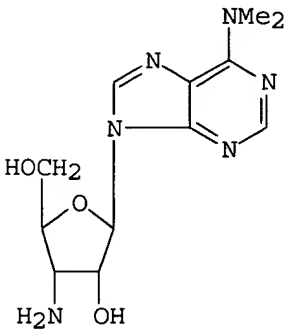
(17) Perrin, D; Purification of Laboratory Chemicals 1980
(18) Porter, J; Antibiot Chemother 1952, V2, P409 HCAPLUS
(19) Ryan, M; Bioorg Chem 1999, V27, P55 HCAPLUS
(20) Traut, R; J Mol Biol 1964, V10, P63 MEDLINE
(21) Vince, R; J Med Chem 1986, V29, P2400 HCAPLUS
(22) Waller, C; J Am Chem Soc 1953, V75, P2025 HCAPLUS
(23) Yarmolinsky, M; Proc Natl Acad Sci USA 1959, V45, P1721 HCAPLUS

L4 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2002 ACS
AN 1982:400387 HCAPLUS
DN 97:387
TI Basis for the differential action of aminonucleoside on normal and transformed human fibroblasts
AU Albanese, Ernest A.; Studzinski, George P.
CS Coll. Med. Dent., New Jersey Med. Sch., Newark, NJ, 07103, USA
SO JNCI, J. Natl. Cancer Inst. (1982), 68(3), 407-13
CODEN: JJIND8; ISSN: 0198-0157
DT Journal
LA English
CC 1-6 (Pharmacology)
GI



I

AB Acid-sol. exts. of normal human fibroblasts (IMR 90 cells) exposed to 3H-**labeled** puromycin aminonucleoside (I) [**58-60-6**] contained larger amts. of unchanged I than did similar exts. of their transformed counterparts (AG 2804 cells). The radioactive compds. present in IMR 90 cells were further analyzed by sequential high-voltage paper electrophoresis, enzyme digestion, and paper chromatog. In addn. to unchanged [3H]I, only 3H-labeled adenosine, 3H-labeled inosine, and 3H-labeled AMP could be detected, apparently derived from [3H]adenosine

present in the [3H]I samples added to the cultures. Consistent with the absence of metab. of I in IMR 90 cells was the failure to find I derivs. in the RNA or DNA of these cells. The content of ribonucleoside triphosphates (rNTPs) in acid-sol. exts. of IMR 90 cells was significantly reduced by I treatment, and nuclei or broken cell prepns. obtained from I-treated IMR 90 cells incorporated [3H]UTP into macromols. at approx. control rates, when supplemented with rNTPs. Thus, the reduced level of rNTPs may be responsible for the I-induced inhibition of RNA synthesis in normal cells.

ST puromycin aminonucleoside inhibition RNA formation

IT Neoplasm inhibitors
(puromycin aminonucleoside inhibition of RNA formation by human fibroblasts in relation to)

IT Ribonucleic acid formation
(puromycin aminonucleoside inhibition of, in human fibroblasts)

IT Nucleotides, biological studies
RL: BIOL (Biological study)
(ribo-, puromycin aminonucleoside inhibition of RNA formation by human fibroblasts in relation to)

IT 58-60-6
RL: BIOL (Biological study)
(RNA formation inhibition by, in human fibroblasts)

L4 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2002 ACS

AN 1980:158350 HCAPLUS

DN 92:158350

TI Metabolism of puromycin aminonucleoside in transformed human lung fibroblasts and the mechanism of its inhibition of RNA synthesis

AU Albanese, Ernest A.; Studzinski, George P.

CS New Jersey Med. Sch., Coll. Med. Dent., Newark, NJ, 07103, USA

SO Mol. Pharmacol. (1980), 17(2), 262-7
CODEN: MOPMA3; ISSN: 0026-895X

DT Journal

LA English

CC 3-6 (Biochemical Interactions)

AB SV-40-transformed human lung fibroblasts (WI38-VA13 cells) were incubated for 4 h with highly purified, tritium-**labeled** puromycin aminonucleoside (AMS) [**58-60-6**], together with unlabeled AMS at a final concn. of 340 .mu.M (100 .mu.g/mL). Approx. 90% of AMS was unchanged in the acid-sol. pool. Phosphorylated forms of the demethylated deriv. of AMS 3'-amino-3'-deoxyadenosine (3'-AmA) [2504-55-4] were also found; one form was shown to be the 5'-monophosphate [4360-05-8] and the other the 5'-triphosphate [4209-30-7]. Tracer concns. of AMS (0.066 .mu.M) were converted to phosphorylated derivs. to a larger extent, and nonphosphorylated 3'-AmA was not found in the acid-sol. pool even at the higher AMS concn., indicating that the demethylating step is slower than the phosphorylating reactions. Alk. hydrolysis of the RNA from AMS-treated cells released only nonphosphorylated 3'-AmA. AMS or its derivs. were not detected in the DNA of treated cells. Apparently, AMS is successively demethylated and phosphorylated, and the resultant 3'-AmA triphosphate is incorporated into the terminal positions of nascent RNA chains. Further elongation of the growing RNA polynucleotide is prevented by the 3'-amino group of the analog, thus causing premature termination of RNA synthesis.

ST puromycin aminonucleoside fibroblast RNA

IT Ribonucleic acids
RL: FORM (Formation, nonpreparative)
(formation of, puromycin aminonucleoside inhibition of, in fibroblast)

IT Deoxyribonucleic acids
RL: BIOL (Biological study)
(of fibroblast, puromycin aminonucleoside effect on)

IT Fibroblast
(transformed, puromycin aminonucleoside metab. by, RNA formation inhibition in relation to)

IT 4209-30-7 4360-05-8
RL: FORM (Formation, nonpreparative)
(formation of, by fibroblast, puromycin aminonucleoside metab. in relation to)
IT 2504-55-4D, phosphorylated derivs.
RL: FORM (Formation, nonpreparative)
(formation of, by fibroblasts, puromycin aminonucleoside metab. in relation to)
IT 2504-55-4
RL: FORM (Formation, nonpreparative)
(formation of, in fibroblast, puromycin aminonucleoside metab. in relation to)
IT 58-60-6
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(metab. of, in fibroblast, RNA formation inhibition in relation to)

L4 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2002 ACS
AN 1979:35250 HCAPLUS
DN 90:35250
TI Photoaffinity labeling of the ribosomal peptidyl transferase site with synthetic puromycin analogs
AU Vince, Robert; Brownell, Jay; Fong, Kei-Lai Lau
CS Coll. Pharm., Univ. Minnesota, Minneapolis, Minn., USA
SO Biochemistry (1978), 17(25), 5489-93
CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
CC 6-13 (General Biochemistry)
Section cross-reference(s): 7
AB A photoaffinity labeling puromycin analog, N.epsilon.-(2-nitro-4-azidophenyl)-L-lysinyl puromycin aminonucleoside (I), was synthesized and used for investigation of the peptidyltransferase center of 70 S ribosomes. Visible light irradn. of I led to covalent linkage of the analog with Escherichia coli ribosomes. In a subsequent step, poly(uridylic acid) was employed to direct acetylphenylalanyl-14C-tRNA to the P sites of the photolabeled ribosomes. Transpeptidation of acetylphenylalanine-14C to the bound I resulted in selective incorporation of radioactive label into the peptidyltransferase. of radioactive label into the peptidyltransferase A site. Dissocn. of the ribosomes into subunits, and digestion of the RNA components, indicated that the radioactive label was incorporated into a protein fraction of the 50 S subunit.
ST ribosome peptidyltransferase site photoaffinity labeling; puromycin analog peptidyltransferase site ribosome
IT Ribosome
(peptidyltransferase site of, photoaffinity labeling of)
IT **58-60-6**
RL: BIOL (Biological study)
(in prepn. of ribosomal peptidyltransferase site photoaffinity **label**)
IT 68826-15-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of and reaction with methylene chloride)
IT 68826-16-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of and reaction with puromycin aminonucleoside)
IT 68826-14-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of and ribosomal peptidyltransferase site photoaffinity labeling with)
IT 13734-28-6
RL: RCT (Reactant)
(reaction of, with 4-azido-2-nitrofluorobenzene)
IT 28166-06-5

RL: RCT (Reactant)
(reaction of, with N.alpha.-tert-butyloxycarbonyl lysine)
IT 9059-29-4
RL: BIOL (Biological study)
(ribosome site for, photoaffinity labeling of)

L4 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2002 ACS
AN 1976:697 HCAPLUS
DN 84:697
TI fMet-tRNAfMet binding and peptidyl transferase function in free and bound ribosomes from normal and puromycin aminonucleoside-treated rats
AU Innanen, V. T.; Nicholls, D. M.
CS Dep. Biol., York Univ., Downsview, Ont., Can.
SO Chem.-Biol. Interact. (1975), 11(5), 431-9
CODEN: CBINA8
DT Journal
LA English
CC 3-1 (Biochemical Interactions)
Section cross-reference(s): 6
AB Treatment of rats with puromycin aminonucleoside [**58-60-6**], which increases the incorporation of **labelled** phenylalanyl-tRNA into polypeptide chains in liver ribosome prepns. studied in vitro, did not change the factor-dependent binding of fMet-tRNAfMet to ribosomes nor the peptidyl transferase [9059-29-4] function of the ribosomes. Peptidyl transferase function, as measured by fMet-tRNAfMet-puromycin formation, was comparable in the free and bound ribosome prepns. Similarly, the factor-dependent binding of fMet-tRNAfMet to ribosomes was the same in free ribosome prepns. obtained from rat liver as it was in bound ribosome prepns. that had been freed of membranes by puromycin incubation and high salt wash.
ST puromycin aminonucleoside ribosome; RNA binding ribosome; peptidyl transferase ribosome
IT Ribonucleic acids, transfer
RL: BIOL (Biological study)
(formylmethionyl, ribosome binding of, puromycin aminonucleoside effect on)
IT Ribosome
(peptidyl transferase activity and RNA binding in, puromycin aminonucleoside effect on)
IT 9059-29-4
RL: PRP (Properties)
(of ribosomes, puromycin aminonucleoside effect on)
IT 58-60-6
RL: PRP (Properties)
(peptidyl transferase activity and RNA binding in ribosomes response to)

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	606.34	620.35
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-6.82	-6.82

STN INTERNATIONAL LOGOFF AT 08:25:20 ON 30 SEP 2002